

Jingxu Kent Zheng

List of Publications by Year in descending order

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54
papers

3,693
citations

218381

26
h-index

174990

52
g-index

54
all docs

54
docs citations

54
times ranked

3367
citing authors

#	ARTICLE	IF	CITATIONS
1	Textured Electrodes: Manipulating Built-in Crystallographic Heterogeneity of Metal Electrodes via Severe Plastic Deformation. <i>Advanced Materials</i> , 2022, 34, e2106867.	11.1	62
2	Alignment and strengthening effect of Mg_2Si precipitates in Mg-Gd-Y-Zr during ageing process studied by HAADF-STEM and GPA. <i>Philosophical Magazine Letters</i> , 2022, 102, 71-80.	0.5	2
3	Production of fast-charge Zn-based aqueous batteries via interfacial adsorption of ion-oligomer complexes. <i>Nature Communications</i> , 2022, 13, 2283.	5.8	47
4	Understanding the Reversible Electrodeposition of Al in Low-Cost Room Temperature Molten Salts. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 1919-1919.	0.0	0
5	Regulating electrodeposition morphology in high-capacity aluminium and zinc battery anodes using interfacial metal-substrate bonding. <i>Nature Energy</i> , 2021, 6, 398-406.	19.8	169
6	Stabilizing Zinc Electrodeposition in a Battery Anode by Controlling Crystal Growth. <i>Small</i> , 2021, 17, e2101798.	5.2	58
7	Atomic-scale observation on the precipitates in various aging stages of Mg-Gd-Y-Cu alloy. <i>Journal of Alloys and Compounds</i> , 2021, 887, 161423.	2.8	7
8	Controlling electrochemical growth of metallic zinc electrodes: Toward affordable rechargeable energy storage systems. <i>Science Advances</i> , 2021, 7, .	4.7	209
9	On the crystallography and reversibility of lithium electrodeposits at ultrahigh capacity. <i>Nature Communications</i> , 2021, 12, 6034.	5.8	70
10	(Electrodeposition Division Early Career Investigator Award Address) Regulating Electrochemical Deposition of Metals at Rechargeable Battery Electrodes. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 690-690.	0.0	0
11	Engineering Multiscale Coupled Electron/Ion Transport in Battery Electrodes. <i>ACS Nano</i> , 2021, 15, 19014-19025.	7.3	23
12	Proton Intercalation/Deintercalation Dynamics in Vanadium Oxides for Aqueous Aluminum Electrochemical Cells. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 3048-3052.	7.2	122
13	Proton Intercalation/Deintercalation Dynamics in Vanadium Oxides for Aqueous Aluminum Electrochemical Cells. <i>Angewandte Chemie</i> , 2020, 132, 3072-3076.	1.6	13
14	Thermodynamic re-assessment of the Mg-Gd binary system coupling the microstructure evolution during ageing process. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2020, 68, 101712.	0.7	12
15	Designing electrolytes with polymerlike glass-forming properties and fast ion transport at low temperatures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 26053-26060.	3.3	82
16	Regulating the growth of aluminum electrodeposits: towards anode-free Al batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 23231-23238.	5.2	29
17	Spontaneous and field-induced crystallographic reorientation of metal electrodeposits at battery anodes. <i>Science Advances</i> , 2020, 6, eabb1122.	4.7	143
18	Regulating electrodeposition morphology of lithium: towards commercially relevant secondary Li metal batteries. <i>Chemical Society Reviews</i> , 2020, 49, 2701-2750.	18.7	310

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19	Study on the precipitates in various aging stages and composite strengthening effect of precipitates and long-period stacking ordered structure of Mg-Gd-Y-Ni alloy. <i>Journal of Materials Research</i> , 2020, 35, 172-184.	1.2	4
20	Microscopic Origins of Caging and Equilibration of Self-Suspended Hairy Nanoparticles. <i>Macromolecules</i> , 2019, 52, 8187-8196.	2.2	15
21	Reversible epitaxial electrodeposition of metals in battery anodes. <i>Science</i> , 2019, 366, 645-648.	6.0	1,097
22	On the Reversibility and Fragility of Sodium Metal Electrodes. <i>Advanced Energy Materials</i> , 2019, 9, 1901651.	10.2	48
23	Precipitation of T ₁ phase in 2198 Al-Li alloy studied by atomic-resolution HAADF-STEM. <i>Journal of Materials Research</i> , 2019, 34, 3535-3544.	1.2	18
24	Physical Orphaning versus Chemical Instability: Is Dendritic Electrodeposition of Li Fatal?. <i>ACS Energy Letters</i> , 2019, 4, 1349-1355.	8.8	80
25	Atomic-scale characterization of interfaces between 2A70 aluminum alloy matrix and Cu-enriched layer after electropolishing. <i>Materials Characterization</i> , 2019, 150, 150-154.	1.9	8
26	On the strengthening precipitate structures in Mg-Gd-Ag alloy: An atomic-resolution investigation using Cs-corrected STEM. <i>Materials Letters</i> , 2019, 238, 66-69.	1.3	11
27	Experimental and DFT characterization of δ nano-phase and its interfaces in Al Zn Mg Cu alloys. <i>Acta Materialia</i> , 2019, 164, 207-219.	3.8	113
28	Nonplanar Electrode Architectures for Ultrahigh Areal Capacity Batteries. <i>ACS Energy Letters</i> , 2019, 4, 271-275.	8.8	32
29	Cluster on interface of LPSO phase and matrix in Mg-Gd-Y-Ni alloy: Atomic scale insight from HAADF-STEM. <i>Materials Letters</i> , 2019, 235, 71-75.	1.3	6
30	Unveiling the Interfaces between δ Precipitates in Mg-Gd-Y-Zr Alloy: Insights from Atomic-Scale HAADF-STEM. <i>Advanced Engineering Materials</i> , 2018, 20, 1700730.	1.6	2
31	Degradation of precipitation hardening in 7075 alloy subject to thermal exposure: A Cs-corrected STEM study. <i>Journal of Alloys and Compounds</i> , 2018, 741, 656-660.	2.8	21
32	Nano-scale precipitation and phase growth in Mg-Gd binary alloy: An atomic-scale investigation using HAADF-STEM. <i>Materials and Design</i> , 2018, 137, 316-324.	3.3	56
33	Solid electrolyte interphases for high-energy aqueous aluminum electrochemical cells. <i>Science Advances</i> , 2018, 4, eaau8131.	4.7	186
34	Interphases in Lithium-Sulfur Batteries: Toward Deployable Devices with Competitive Energy Density and Stability. <i>ACS Energy Letters</i> , 2018, 3, 2104-2113.	8.8	54
35	Precipitation in an Al-Zn-Mg-Cu alloy during isothermal aging: Atomic-scale HAADF-STEM investigation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 691, 60-70.	2.6	112
36	Segregation of solute atoms in Mg-Ce binary alloy: atomic-scale novel structures observed by HAADF-STEM. <i>Philosophical Magazine</i> , 2017, 97, 1498-1508.	0.7	14

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37	Mechanical Properties and Deformation Mechanisms of Mg-Gd-Y-Zr Alloy at Cryogenic and Elevated Temperatures. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 590-600.	1.2	6
38	Precipitation in Mg-Nd-Y-Zr-Ca Alloy during Isothermal Aging: A Comprehensive Atomic-Scale Study by Means of HAADF-STEM. <i>Advanced Engineering Materials</i> , 2017, 19, 1600244.	1.6	7
39	Unexpected Fe-enriched compounds observed in Mg-Ce alloy: An atomic-scale STEM investigation. <i>Scanning</i> , 2016, 38, 783-791.	0.7	2
40	Nano-Size Zirconium-Enriched Cores in Mg-Gd-Y-Zr: An Atomic-Scale HAADF-STEM Study. <i>Advanced Engineering Materials</i> , 2016, 18, 1332-1336.	1.6	2
41	The Effect of Thermal Exposure on the Microstructures and Mechanical Properties of 2198 Al-Li Alloy. <i>Advanced Engineering Materials</i> , 2016, 18, 1225-1233.	1.6	12
42	Quantitative Control of Pore Size of Mesoporous Carbon Nanospheres through the Self-Assembly of Diblock Copolymer Micelles in Solution. <i>Small</i> , 2016, 12, 3155-3163.	5.2	117
43	Nano-Sized Cuboid-Shaped Phase in Mg-Nd-Y Alloy and its Behavior During Isothermal Aging. <i>Microscopy and Microanalysis</i> , 2016, 22, 1244-1250.	0.2	9
44	Precipitation in Mg-Sm binary alloy during isothermal ageing: atomic-scale insights from scanning transmission electron microscopy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 669, 304-311.	2.6	25
45	Precipitation in Mg-Gd-Y-Zr Alloy: Atomic-scale insights into structures and transformations. <i>Materials Characterization</i> , 2016, 117, 76-83.	1.9	61
46	Interactions between long-period stacking ordered phase and η^2 precipitate in Mg-Gd-Y-Zn-Zr alloy: Atomic-scale insights from HAADF-STEM. <i>Materials Letters</i> , 2016, 176, 223-227.	1.3	32
47	Unravelling the Structure of η^3 in Mg-Gd-Zn: An Atomic-scale HAADF-STEM Investigation. <i>Materials Characterization</i> , 2016, 120, 345-348.	1.9	26
48	AZ91 Magnesium Alloy/Porous Hydroxyapatite Composite for Potential Application in Bone Repair. <i>Journal of Materials Science and Technology</i> , 2016, 32, 858-864.	5.6	49
49	Atomic-scale characterization of the equilibrium η^2 phase in Mg-Nd-Y alloy by means of HAADF-STEM. <i>Scanning</i> , 2016, 38, 743-746.	0.7	6
50	Electro-deposited calcium phosphate compounds on graphene sheets: Blossoming flowers. <i>Materials Letters</i> , 2016, 179, 122-125.	1.3	2
51	Atomic imaging of the coherent interface between orientedly-attached Mn ₃ O ₄ nanoparticles. <i>Materials Characterization</i> , 2016, 117, 144-148.	1.9	3
52	Segregation of rare earth atoms in Mg-Gd-Y-Zr alloy after a 6-year natural ageing at room temperature: Atomic-scale direct imaging. <i>Materials Letters</i> , 2016, 174, 86-90.	1.3	6
53	Facile template-free synthesis of vertically aligned polypyrrole nanosheets on nickel foams for flexible all-solid-state asymmetric supercapacitors. <i>Nanoscale</i> , 2016, 8, 8650-8657.	2.8	64
54	Novel structures observed in Mg-Gd-Y-Zr during isothermal ageing by atomic-scale HAADF-STEM. <i>Materials Letters</i> , 2015, 152, 287-289.	1.3	29